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(54) Methods of fabricating integrated, aligned tunneling tip pairs

(57) Self-aligned, opposed, nanometer dimension tips (12, 22) are fabricated in pairs, one of each pair being located on a movable (24) single crystal beam, with the beam being movable in three dimensions with respect to a substrate (18) carrying the other tip (12) of a pair. Motion of one tip with respect to the other is controlled or sensed by transducers (120, 122, 124, 126) formed on the supporting beams (62, 64). Spring means (76, 80, 86, 88) in each beam allow axial motion of the beam. The tips (12, 22) and beams (62, 64) are fabricated from single crystal silicon substrate (18) and the tips (12, 22) may be electrically isolated from the substrate (18) by fabricating insulating segments (40, 54) in the beam structure.

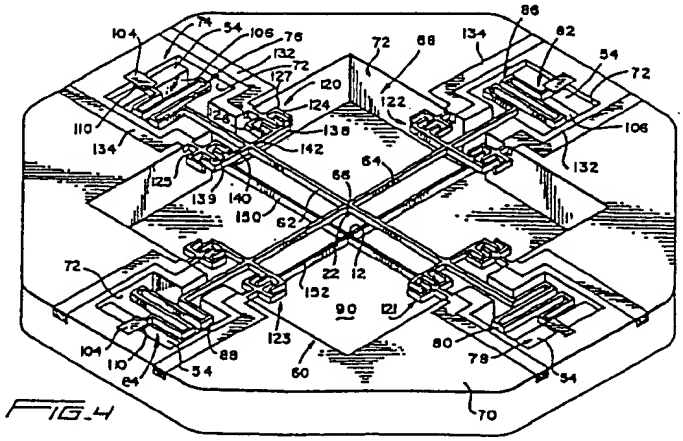

FIG.4

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EUROPEAN SEARCH REPORT

Application Number
EP 98 11 6809

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TECHNICAL FIELDS SEARCHED (Int.Cl.7)
G01B
G01N
H02N

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	15 August 2000	Clevorn, J

CATEGORY OF CITED DOCUMENTS

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